### Bachelor of Biomedical Sciences Programme

**Biomedical sciences cover a wide range of scientific and allied disciplines, including:** molecular and cell biology, genetics and genome science, bioinformatics, anatomy, physiology, pharmacology, biological and medicinal chemistry, immunology and microbiology, and public and environmental health. The study of biomedical sciences focuses on the relationships between humans, health, and disease, translating biomedical applications of basic sciences to the clinical practices of health services and healthcare industry.

The 21st century is widely regarded as an age of ‘biomedicine’. With the backup of its excellent track record in biomedical research and a strong team of biomedical scientists in the basic science and clinical departments, the Faculty offers the Bachelor of Biomedical Sciences (BiologyScs) programme with the aim of nurturing graduates with broad but core knowledge in key biomedical disciplines. They will be well-trained to develop careers in areas such as research in universities, government and medical laboratories; research and development for the pharmaceutical, diagnostical, medical devices and laboratory instrumentation industries, and management and business development of related industries; clinical trials management; media and communication; and health promotion, hospital administration and healthcare planning. They will also have acquired an excellent foundation for proceeding to medical, veterinary sciences or other health-related professional programmes through graduate entry, and for MPH/PhD studies.

**Admission Requirements**

In addition to satisfying the University entrance requirements, candidates for admission shall satisfy all of the following requirements in HKDSE:

- (a) achieve the level of performance in the four core subjects as below:
  - **Subject**
  - **Level of Performance**
  - English
  - 4
  - Chinese
  - 3
  - Mathematics
  - 2
  - Liberal Studies
  - 2

- (b) attain at least Level 3 in two electives, one of which must be:
  - (i) Biology or
  - (ii) Chemistry or
  - (iii) Combined Science with Biology as one of the components or
  - (iv) Combined Science with Chemistry as one of the components

The best 6 subjects of HKDSE will be taken into consideration for admission.

- **Further Articulation Pathways**
  - **BVM&G (3 years)**
  - **M&E and Practical (1.5 years)**
  - **MBBS (4 years)**

- **Prospect: Veterinary Surgeon**
  - **Diagnostic Radiographer** (subject to local registration requirements)

- **Prospect: Medical Doctor**

### Enquiries

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- **Facebook**: [https://www.facebook.com/hkusbms](https://www.facebook.com/hkusbms)
- **Instagram**: [https://www.instagram.com/hkusbms/](https://www.instagram.com/hkusbms/)
- **Phone**: (852) 3917-9240

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![Biomolecular Sciences Curriculum Structure](image)

**课程結構**

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Biomedical core courses (24 credits)</th>
<th>Summer Internship (HK/Overseas/Industrial)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Common core courses (24 credits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Language Enhancement courses (12 credits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biomedical core courses + Electives (42 credits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Common core courses (24 credits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Language Enhancement course (6 credits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biomedical core courses + Electives (60 credits)</td>
<td></td>
</tr>
</tbody>
</table>

**OR**

- Undertake Overseas Exchange Studies and/or Research Attachment
- Articulation Arrangements (‘Satisfying admission criteria of the respective schools’)

<table>
<thead>
<tr>
<th>Year 2</th>
<th>Biomedical core courses + Electives (48 credits)</th>
<th>Final Year Project (12 credits) or Innovation Team Project (12 credits)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Summer Internship (HK/Overseas/Industrial)</td>
<td></td>
</tr>
</tbody>
</table>

**Year 3**

<table>
<thead>
<tr>
<th>University</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>The University of Edinburgh, UK</td>
<td>Bachelor of Veterinary Medicine &amp; Surgery (BVM&amp;G)</td>
</tr>
<tr>
<td>The University of Sydney, Australia</td>
<td>Master of Diagnostic Radiography (MDR)</td>
</tr>
<tr>
<td>The University of Hong Kong</td>
<td>Bachelor of Medicine and Bachelor of Surgery (MBBS)</td>
</tr>
</tbody>
</table>

**Year 4**

<table>
<thead>
<tr>
<th>Further Articulation Pathways</th>
</tr>
</thead>
<tbody>
<tr>
<td>BVM&amp;S (3 years)</td>
</tr>
<tr>
<td>MDR and Practicum (1.5 years)</td>
</tr>
<tr>
<td>MBBS (4 years)</td>
</tr>
</tbody>
</table>

- **Prospect: Veterinary Surgeon**
  - **Diagnostic Radiographer** (subject to local registration requirements)

- **Prospect: Medical Doctor**

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**入學要求**

除了符合大學基本入學要求外，擁有香港中學文憑申請者必須達到本課程的最低入學資格。詳見下表。

(甲) 於以下四個核心科目考取相對應或以上的成績水平：

<table>
<thead>
<tr>
<th>學科</th>
<th>等級</th>
</tr>
</thead>
<tbody>
<tr>
<td>英國語文</td>
<td>4</td>
</tr>
<tr>
<td>中國語文</td>
<td>3</td>
</tr>
<tr>
<td>數學</td>
<td>2</td>
</tr>
<tr>
<td>理科教育</td>
<td>2</td>
</tr>
</tbody>
</table>

(乙) 於兩科副學科中獲取第三級或以上的成績水平。

- 生物：或
- 化學：或
- 組合科學（包括生物）：或
- 組合科學（包括化學）：或

香港中學文憑課程之六科最佳成績將按作入學用途。
**Core Courses for Biomedical Sciences Major**

**生物醫學主修核心課程**

The core courses are divided into introductory and advanced levels.

### Introductory Courses 導引課程

The introductory courses consolidate students’ knowledge of anatomy, human biology, human physiology, biochemistry, and pharmacology which are all necessary to understand the basis of human biology and processes that are essential to life.

- **Students are required to complete the following introductory courses (6 credits each):**
  - Introduction to Human Anatomy and Physiology
  - Perspectives in Biochemistry
  - Biostatistics
  - General Chemistry / Foundations of Chemistry
  - Basic Biomedical Laboratory Techniques

### Advanced Courses 高級課程

The advanced courses provide students with a foundation in the cellular, molecular and genetic basis of human diseases, as well as strategies for diagnosis. In the last year of their study, students are required to undertake a final year project or the Innovation Team Project. The Final Year Project constitutes a capstone experience for students, allowing them to integrate their knowledge and apply experimental and informatics skills to solve defined problems by research. The Innovation Team Project provides a capstone experience for students, allowing them to integrate their knowledge in biomedical sciences previously acquired, and knowledge in business and marketing introduced in this course to translate biomedical research to viable products.

- **Students are required to complete the following advanced courses: (6 credits each)**
  - Molecular Diagnostics Laboratory
  - Final Year Project (12 credits) or Innovation Team Project (12 credits)

### Research Training and Exchange Opportunities 科研及交流機會

BiBiomedSc students are provided with ample opportunities to experience laboratory-based research and be trained for a career in research and development. They can join the research teams of professoriate members of the Faculty, and/or participate in overseas exchange and attach to the research laboratories of top class universities abroad. The Undergraduate Research Fellowship Programme (URFP) of the University supports students in their pursuit of research and development with the provision of scholarships.

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**Minor Options and Electives 副修及選修課程**

Students can plan their study with the remaining 90 credits in various manners. They may opt to take a minor and/or electives offered within the BiBiomedSc curriculum or offered in other curricula.

- **Minor in Biotechnology & Clinical Research**
  - Example Courses:
    - Contemporary Topics in Biomedical Technology
    - Stem Cell Biotechnologies in Regenerative Medicine
    - Business Aspects of Biotechnology

- **Minor in Genetics & Genomics**
  - Example Courses:
    - Cancer Biology
    - Genome Science
    - Public Health Genetics

- **Minor in Kinesiology**
  - Example Courses:
    - Exercise Physiology
    - Biological Basis of Exercise and Health

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**Programme Overview 課程概覽**

The BiBiomedSc curriculum is designed with a good balance of structure and flexibility, allowing students to plan their study straddling sciences and humanities. The focus of the Biomedical Sciences core courses is to cover:

- the structures and functions of the human body and the processes that are essential to life
- the basic principles of the processes, mechanisms, patterns of diseases and concepts of therapeutic strategies
- the essential analytical methodologies and the state of the art of contemporary information technology in the field of biomedical sciences

Students are required to complete a total of 240 credits of courses in the four year curriculum, of which 96 credits are Biomedical Sciences major courses, 36 credits are Common Core courses, and 18 credits are Language Enhancement courses. The remaining 90 credits are for minor and electives.

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**本科生醫學士課程為四年制課程，學生共須修修二百四十個學分，當中九十六個學分為生物醫學主修課程，三十六個學分為大學核心課程，十八個學分為一般課程。餘下的為副修或選修學分。課程設計靈活，學生於修習生物醫學課程之餘，也能發展其他興趣，涉獵人文學科。生物醫學主修課程包括以下內容：**

- 人體結構和生理功能
- 疾病病機，發病機制與模式
- 生物醫學範疇中的最新科技